

SERMATECH INTERNATIONAL INCORPORATED

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: SermaBond PBX
Manufacturer's Name: Sermatech International Incorporated
Address: 159 South Limerick Road, Royersford, Pa 19468
Business Telephone #: 610-474-1200
Emergency Telephone #: (USA)800-424-9300 (Chemtrec) (INTERNATIONAL) 1-703-527-3887
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SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Table with 7 columns: INGREDIENT, CAS #, WT%, ACGIH-TWA, EXPOSURE GUIDELINES (OSHA-PEL, EH40), SEC 313. Rows include Silicon dioxide, Aluminum oxide, and Chromium oxide Cr2O3.

NONHAZARDOUS INGREDIENTS WITHHELD AS A TRADE SECRET.

SECTION 3 - HAZARD IDENTIFICATION

HAZARD OVERVIEW
Green odorless powder. Contains crystalline silica which is classified as a probable human carcinogen and can cause silicosis. Irritating to eyes and respiratory system. May cause irritation or sensitization by skin contact.

Potential Health Effects

- EYE: May cause irritation
SKIN: Prolonged or repeated skin contact may cause irritation or sensitization.
INGESTION: May be harmful if swallowed.
INHALATION: Irritation may result from inhalation of airborne product. Inhalation of crystalline silica may cause silicosis (see Section 11).
CHRONIC (CANCER) INFORMATION: There is evidence that respirable crystalline silica is a carcinogen (see Section 11).
TERATOLOGY (BIRTH DEFECTS) INFORMATION: None
REPRODUCTION INFORMATION: No Information

SECTION 4 - FIRST AID MEASURES

- EYES: Flush with water for 15 minutes. If irritation persists, get medical attention.
SKIN: Immediately flush skin with water, remove contaminated clothing and wash before reuse. Severe skin contact may require medical attention.

INGESTION: Rinse mouth thoroughly with water. Do not induce vomiting. Obtain medical attention.

INHALATION: Remove victim to fresh air. Obtain medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: None

METHOD: Not applicable

FLAMMABLE LIMITS:

Lower flammable limit: Unknown

Upper flammable limit: Unknown

HAZARDOUS DECOMPOSITION PRODUCTS: Quartz (crystalline silica) can be converted to trydimite at 870°C and crystallite at 1470°C. Both of these forms are more fibrogenic than quartz.

EXTINGUISHING MEDIA: Coating will not burn or support combustion. Carbon dioxide, sand, dry chemical.

FIRE FIGHTING INSTRUCTIONS: N/A

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Scoop up into container. Avoid generating dust. Flush spill area with excess water.

LARGE SPILL: N/A

SECTION 7 - HANDLING AND STORAGE

HANDLING: Use with adequate ventilation. Do not get on skin and clothing.

STORAGE: Shelf life is one (1) year. Pot life of mixed PBX Cement is 8 hours. Store inside in original containers.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Mix PBX in an area with adequate ventilation.

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirator if dust is being generated.

SKIN PROTECTION: Wear gloves and other suitable protective clothing.

EYE PROTECTION: Wear approved glasses or goggles.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure (MM Hg): N/A

Vapor Density (Air=1): N/A

Evaporation Rate (H2O)=1): N/A

Appearance/Odor: Green odorless powder

Solubility In Water: Negligible

Specific Gravity: approx. 4

VOC Content: None

pH: N/A

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: (CONDITIONS TO AVOID) Stable.

INCOMPATIBILITY: Avoid contact with strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Will not occur. (See Section 5)

HAZARDOUS POLYMERIZATION: Will not occur.

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SECTION 11 - TOXICOLOGICAL INFORMATION

The primary health hazard associated with this product involves inhalation of crystalline silica dusts. Exposure to silica residues would most likely occur if dusts are generated when mixing the PBX Cement.

SILICOSIS: The major concern associated with exposure to respirable crystalline silica is silicosis, caused by the inhalation and retention of respirable crystalline silica dust. Silicosis can exist in several forms, chronic or ordinary, accelerated or acute.

Chronic or ordinary silicosis is the most common form of silicosis, and can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis. Simple silicosis is characterized by lung lesions (shown as radiographic opacities) less than 1 centimeter in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms or disability. Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis and PMF are characterized by lung lesions greater than 1 centimeter in diameter. The symptoms are shortness of breath, wheezing, cough and sputum production. Complicated silicosis and PMF can result in pulmonary heart disease. PMF may be disabling and may lead to death.

Accelerated silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five (5) years of the initial exposure. The progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that the lung lesions appear earlier and the progression is more rapid.

Acute silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis is fatal.

CANCER:

IARC - The International Agency for Research on Cancer (IARC) concluded that there was sufficient evidence in humans for the carcinogenicity of crystalline silica in the forms of quartz or cristobalite from occupational sources, and that there is sufficient evidence in experimental animals for the carcinogenicity of quartz and cristobalite. The overall IARC evaluation was that "Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1). The IARC evaluation noted that "Carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." For further information on the IARC evaluation, see IARC monographs on the evaluation of carcinogenic risks to humans, Volume 68, "Silica, Some Silicates..." (1997).

NTP - The National Toxicological Program, in its sixth annual report on carcinogens, concluded that "Silica, Crystalline (Respirable)" may reasonably be anticipated to be a carcinogen, based on sufficient evidence in experimental animals and limited evidence in humans.

SCLERODERMA - There is evidence that exposure to respirable crystalline silica or the disease silicosis is associated with the increased incidence of Scleroderma, an immune system disorder manifested by a fibrosis (scarring) of the lungs, skin, and other internal organs.

TUBERCULOSIS - Individuals with silicosis are predisposed to develop Tuberculosis.

NEPHROTOXICITY - There are several recent studies suggesting exposure to respirable crystalline silica or the disease silicosis is associated with the increased incidence of kidney lesions.

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SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: No data.

CHEMICAL FATE INFORMATION: No data.

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SECTION 13 - DISPOSAL CONSIDERATIONS

The product in its current form is not considered hazardous waste. Dispose of in accordance with all applicable local, state and federal regulations.

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SECTION 14 - TRANSPORT INFORMATION

Proper shipping Name: Non-hazardous high temperature cement.
Hazard Rating (DOT Class): Not restricted, for transportation purposes.

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SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

OSHA: This product is considered hazardous per OSHA Hazard Communication Rule, 29CFR 1910.1200

SECTION 313: HAZARDOUS INGREDIENTS IDENTIFIED IN THE SEC 313 COLUMN OF SECTION 1 ARE TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40CFR372. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS'S THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

TOXIC SUBSTANCES CONTROL ACT (TSCA): The ingredient of this product are all on the TSCA Inventory List.

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS: Class D Division 2.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All ingredients of this product are on the Domestic Substance List (DSL) and acceptable for use under the provisions of CEPA.

UK CLASSIFICATION FOR SUPPLY: T, Toxic.

R20: Harmful by inhalation
R40: Possible risk of irreversible effects
R48: Danger of serious damage to health by prolonged exposure.
S22: Do not breathe dust
S38: In case of insufficient ventilation, wear suitable respiratory equipment.

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SECTION 16 - OTHER INFORMATION

SermaBond PBX is an aqueous, alkaline, air drying coating intended for use in applications where a thermal barrier is helpful.

HMIS RATINGS:

	Health	Flammability	Reactivity	
	3	0	0	
0=Minimal	1=Slight	2=Moderate	3=Serious	4=Severe

This information is furnished without warranty, expressed or implied; except that it is accurate to the best knowledge of Sermatech Intl. Inc. The above data relates only to the product listed.